NEUROBIOLOGY OF AGING

VOLUME 3 NUMBER 1 SPRING 1982

CONTENTS

Age effects on heart rate, sustained potential and P3 responses during reaction-time tasks. PODLESNY, J. A. and R. E. DUSTMAN 1

Chronic model of neurofibrillary changes induced in mature rabbits by metallic aluminum. WISNIEWSKI, H. M., J. A. STURMAN and J. W. SHEK 11

Changes in monoamines and their metabolite levels in some brain regions of aged rats. PONZIO, F., G. CALDERINI, G. LOMUSCIO, G. VANTINI, G. TOFFANO and S. ALGERI . 23

Plasma and pituitary concentrations of LH, FSH, and prolactin in aging C57BL/6 mice at various times of the estrous cycle. PARKENING, T. A., T. J. COLLINS and E. R. SMITH 31

Correlation of diurnal changes in hormones with sexual behavior and age in male rhesus macaques. CHAMBERS, K. C., J. A. RESKO and C. H. PHOENIX 37

Multiple unit activity recorded longitudinally in rats from pubescence to old age. MALMO, H. P. and R. B. MALMO 43

Amitriptyline selectively disrupts verbal recall from secondary memory of the normal aged. BRANCONNIER, R. J., D. R. DEVITT, J. O. COLE and K. F. SPERA 55

Neuropeptide effects on memory in aged monkeys. BARTUS, R. T., R. L. DEAN and B. BEER . 61

Serial lesion effect in rat medial frontal cortex as a function of age. CORWIN, J. V., J. P. VICEDOMINI, A. J. NONNEMAN and L. VALENTINO 69

BRIEF COMMUNICATION

Research subject recruitment for gerontological studies of pharmacological agents. LEVY, M. I., R. C. MOHS, W. G. ROSEN and K. L. DAVIS 77

NEWS FROM THE NATIONAL INSTITUTES OF HEALTH 81

AGE PAGE 83

CALENDAR 85

SPECIAL CALENDAR 87

ANNOUNCEMENTS 89

NEUROBIOLOGY OF AGING

VOLUME 3 NUMBER 2 SUMMER 1982

CONTENTS

Philothermal response of polymorphonuclear leukocytes in dementia of the Alzheimer type. JARVIK, L. F., S. S. MATSUYAMA, J. O. KESSLER, T.-K. FU, S. Y. TSAI and E. O. CLARK 93

Maintenance of cerebral blood flow and metabolism during pharmacological hypotension in aged hypertensive rats. HOFFMAN, W. E., D. J. MILETICH and R. F. ALBRECHT 101

A signal detectability analysis of the effect of physostigmine on memory in patients with Alzheimer's disease. MOHS, R. C. and K. L. DAVIS 105

Psychoendocrine correlates of sociosexual responsivity in older premenopausal primates. SASSENRATH, E. N., G. D. JENSEN and F. L. BLANTON 111

Somatomedins in aging and dementia disorders of the Alzheimer type. SARA, V. R., K. HALL, K. ENZELL, A. GARDNER, R. MORAWSKI and L. WETTERBERG 117

Changes in neurotransmitter actions in the aged rat hippocampus. SEGAL, M. 121

Reduction of odor and nasal pungency associated with aging. STEVENS, J. C., A. PLANTINGS and W. S. CAIN 125

Memory consolidation in senescence: Effects of CO_2, amphetamine and morphine. MESSING, R. B., H. RIGTER and V. J. NICKOLSON 133

BRIEF COMMUNICATION

Cerebrovascular and cerebral metabolic responses of aged rats to changes in arterial PCO_2. HOFFMAN, W. E., D. J. MILETICH and R. F. ALBRECHT 141

THEORETICAL NOTE

A rationale for studying the transmissibility of Alzheimer's disease. DEUTSCH, S. I., R. C. MOHS and K. L. DAVIS 145

MEETING REPORT

The tenth Aharon Katzir-Katchalsky conference on the aging of the brain, Mantua, Italy, March 25–26, 1982. FERRIS, S. H. 149

AGE PAGE 153

CALENDAR 155

ANNOUNCEMENTS 157

NEUROBIOLOGY OF AGING

VOLUME 3 NUMBER 3 FALL 1982

CONTENTS

EDITORIAL COMMENT 161

Auditory brainstem responses in the aged cat. HARRISON, J. and J. BUCHWALD 163

Lipid peroxides in brain during aging and vitamin E deficiency: Possible relations to changes in neurotransmitter indices. NODA, Y., P. L. McGEER and E. G. McGEER 173

Synaptic remodelling and astrocytic hypertrophy in rat cerebral cortex from early to late adulthood. ADAMS, I. and D. G. JONES 179

Aging in the rat medial nucleus of the trapezoid body. I. Light microscopy. CASEY, M. A. and M. L. FELDMAN 187

Capillaries in aging rat olfactory bulb: A quantitative light and electron microscopic analysis. HINDS, J. W. and N. A. McNELLY 197

Progressing encephalomyelopathy with muscular atrophy, induced by aluminum powder. BUGIANI, O. and B. GHETTI 209

Enhancement of maze learning in old C57BL/6 mice by dietary lecithin. GOLCZEWSKI, J. A., R. N. HIRAMOTO and V. K. GHANTA 223

Age-related changes in benzodiazepine and GABA binding sites in the rat retina. GUARNERI, P., M. G. CORDA, A. CONCAS, M. SALIS, G. CALDERINI, G. TOFFANO and G. BIGGIO 227

Effects of age and stress on regional noradrenaline metabolism in the rat brain. IDA, Y., M. TANAKA, Y. KOHNO, R. NAKAGAWA, K. IIMORI, A. TSUDA, Y. HOAKI and N. NAGASAKI 233

Changes with age in rat central monoaminergic system responses to cold stress. ALGERI, S., G. CALDERINI, G. LOMUSCIO, G. VANTINI, G. TOFFANO and F. PONZIO 237

Age differences in ethanol-induced hypothermia and impairment in mice. WOOD, W. G. and H. J. ARMBRECHT 243

Normal LHRH neuronal function and hyperprolactinemia in old pseudopregnant Fischer 344 rats. ESTES, K. S., J. W. SIMPKINS and S. P. KALRA 247

Reinstatement of LH surges by serotonin neuroleptics in aging, constant estrous rats. WALKER, R. F. 253

BRIEF COMMUNICATION

Muscarinic agonist receptor subtypes in aging rat brain. BRIGGS, R. S., M. M. PETERSEN and P. J. COOK 259

CASE REPORT

Obstructive apnea: Sympathetic activity, respiration and sleep, a case report. VITIELLO, M. V., E. C. GIBLIN, R. B. SCHOENE, J. B. HALTER and P. N. PRINZ 263

NEWS FROM THE NATIONAL INSTITUTES OF HEALTH 267

AGE PAGE 271

CALENDAR 273

NEUROBIOLOGY OF AGING

VOLUME 3 NUMBER 4 WINTER 1982

CONTENTS

EDITORIAL 281

Introduction

Sleep, sleep pathology, and psychopathology in later life: A new research frontier. MILLER, N. E. and R. T. BARTUS 283

Overview: Preclinical Research

Circadian rhythmicity and sleep: Effects of aging in laboratory animals. INGRAM, D. K., E. D. LONDON and M. A. REYNOLDS 287

Characteristics of Sleep in the Elderly

Chronobiology of aging: Temperature, sleep-wake rhythms and entrainment. WEITZMAN, E. D., M. L. MOLINE, C. A. CZEISLER and J. C. ZIMMERMAN 299

The measurement and characteristics of sleep in older persons. WEBB, W. B. 311

Sleep fragmentation in the elderly: Relationship to daytime sleep tendency. CARSKADON, M. A., E. D. BROWN and W. C. DEMENT 321

Sleep Disturbances in the Elderly

Sleep apnea and nocturnal myoclonus in the elderly. KRIPKE, D. F., S. ANCOLI-ISRAEL and N. OKUDAIRA 329

Sleep related breathing disorders in older men: A search for underlying mechanisms. McGINTY, D., M. LITTNER, E. BEAHM, E. RUIZ-PRIMO, E. YOUNG and J. SOWERS 337

Relationships Between Sleep Pathology and Psychopathology in the Elderly

EEG sleep, depression, and aging. KUPFER, D. J., C. F. REYNOLDS III, R. F. ULRICH, D. H. SHAW and P. A. COBLE 351

Sleep, EEG and mental function changes in senile dementia of the Alzheimer's type. PRINZ, P. N., P. P. VITALIANO, M. V. VITIELLO, J. BOKAN, M. RASKIND, E. PESKIND and C. GERBER 361

Disturbances of sleep and cognitive functioning in patients with dementia. LOEWENSTEIN, R. J., H. WEINGARTNER, J. C. GILLIN, W. KAYE, M. EBERT and W. B. MENDELSON 371

The Interactions of Sleep and Drugs in the Elderly

Aging, Drugs and Sleep. GUILLEMINAULT, C. and R. SILVESTRI 379

NEWS FROM THE NATIONAL INSTITUTES OF HEALTH 387

NEWS FROM THE NATIONAL INSTITUTE OF MENTAL HEALTH 389

AGE PAGE 393

CALENDAR 395

ACKNOWLEDGEMENT 397

ANNOUNCEMENTS 399

INDEX TO VOLUME 3 401